

DATASHEET

# GF & HF Coin Cell Supercapacitor

Revision 1.5 Mar 2023

- Long lifetimes
- High operating temperature up to 85°C



## Electrical Specifications

Item (condition)	Specification	
Rated Voltage	5.5V	
GF - Operating Temperature Range	-25°C to +70°C	
GF – Endurance (5V 70°C 1000hrs)	Final ESR ≤ 400% initial ESR	Final C ≥ 60% initial C
HF - Operating Temperature Range	-25°C to +85°C	
HF – Endurance (5V 85°C 1000hrs)	Final ESR ≤ 400% initial ESR	Final C ≥ 60% initial C
24hrs Self-discharge (Held at 5.5V 8hrs, 25°C)	Final V ≥ 4.2V	

## Part numbering code

x	F	N	vvv	dd	ll	S	ccc	R
Model	Coin cell	# of cells	Voltage	Diameter (mm)	Length (mm)	Tolerance	Capacitance (µF)	Lead format
G, H		1	5R5 = 5.5V	11 = 11.7 13 = 13.4 19 = 19.1 20 = 20.9	04 = 4.5 05 = 5.2 06 = 5.5 07 = 7.0 08 = 8.0	P(+80%/-20%) O(+80%/0%) V(+30%/-10%)	Two digits + number of zeros. 155 = 150000µF = 1.5F	V, H, C refer to mechanical drawings

**GF & HF Coin Cell Supercapacitor**

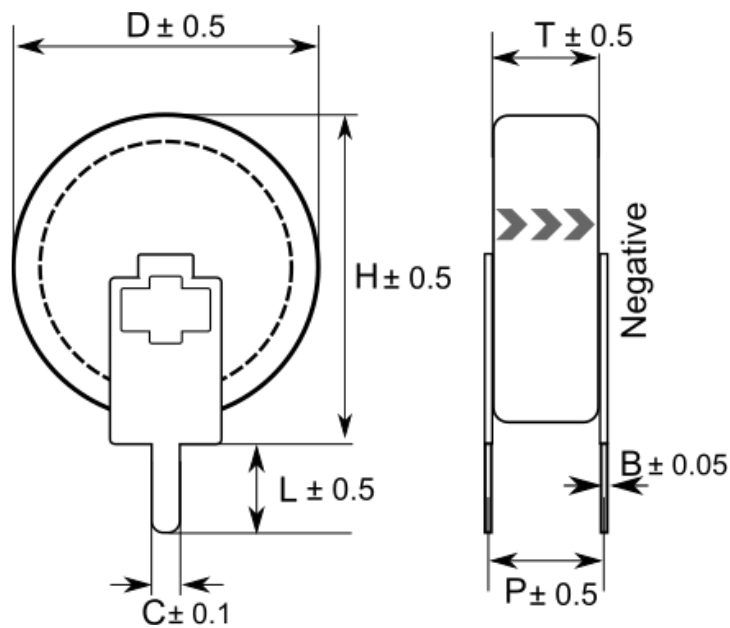
**GF Product Range, V Type**

Temperature Range: -25°C to +70°C

Parameters measured at 25°C

CAP-XX Part no.	Cap (F)	AC ESR Max @1kHz (Ω)	IL max @ 72Hrs (μA)	Dimensions (mm)						
				D	T	H	P	L	C	B
GF15R51104P104V	0.1	50	3	11.7	4.5	13	5	3.5	0.8	0.2
GF15R51104P224V	0.22	40	3	11.7	4.5	13	5	3.5	0.8	0.2
GF15R51104P334V	0.33	40	4	11.7	4.5	13	5	3.5	0.8	0.2
GF15R51104P474V	0.47	50	4	11.7	4.5	13	5	3.5	0.8	0.2
GF15R51905P105V	1	15	6	19.1	5.2	20.7	5	4	1	0.2
GF15R51905P155V	1.5	15	7	19.1	5.2	20.7	5	4	1	0.2

Mechanical drawing, all units in mm:



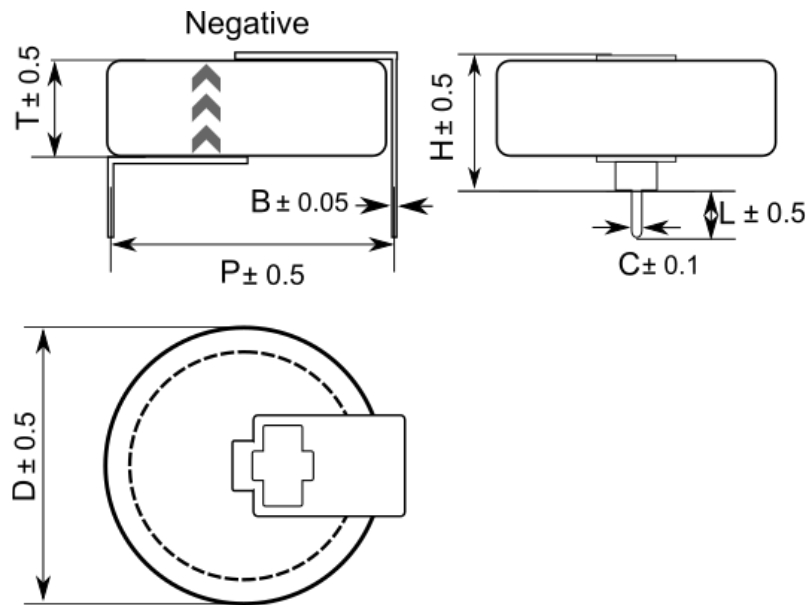
**GF & HF Coin Cell Supercapacitor**

**GF Product Range, H Type**

Temperature Range: -25°C to +70°C  
 Parameters measured at 25°C

CAP-XX Part no.	Cap (F)	AC ESR Max @1kHz (Ω)	IL max @ 72Hrs (μA)	Dimensions (mm)						
				D	T	H	P	L	C	B
GF15R51104P104H	0.1	50	3	11.7	4.5	6	10	3	0.8	0.2
GF15R51104P224H	0.22	40	3	11.7	4.5	6	10	3	0.8	0.2
GF15R51104P334H	0.33	40	4	11.7	4.5	6	10	3	0.8	0.2
GF15R51104P474H	0.47	40	4	11.7	4.5	6	10	3	0.8	0.2
GF15R51905P105H	1	15	6	19.1	5.2	6.7	20	3.5	1	0.2
GF15R51905P155H	1.5	15	7	19.1	5.2	6.7	20	3.5	1	0.2

Mechanical drawing, all units in mm:



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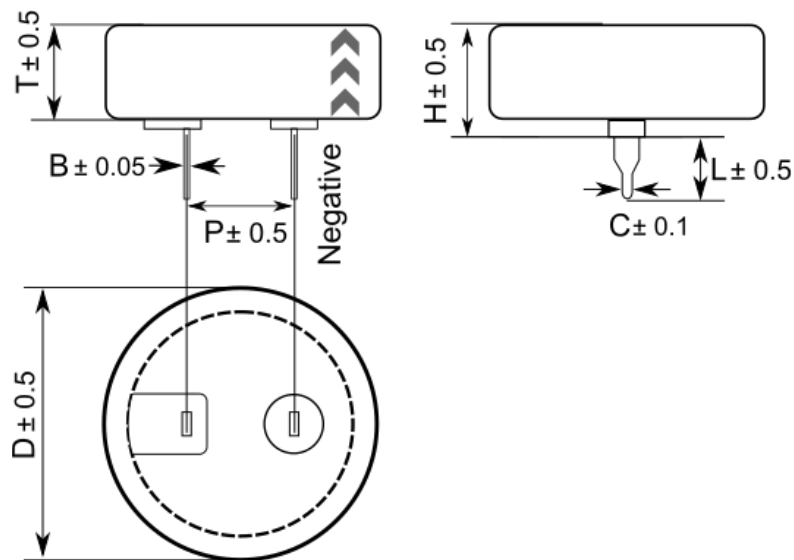
**GF Product Range, C Type**

Temperature Range: -25°C to +70°C

Parameters measured at 25°C

CAP-XX Part no.	Cap (F)	AC ESR Max @1kHz (Ω)	IL max @ 72Hrs (μA)	Dimensions (mm)						
				D	T	H	P	L	C	B
GF15R51307P104C	0.1	50	3	13.4	7	9.5	5	3.5	0.8	0.4
GF15R51307P224C	0.22	40	3	13.4	7	9.5	5	3.5	0.8	0.4
GF15R51307P334C	0.33	40	4	13.4	7	9.5	5	3.5	0.8	0.4
GF15R51307P474C	0.47	40	4	13.4	7	9.5	5	3.5	0.8	0.4
GF15R52008P105C	1	15	6	20.9	8	11.2	5	2.5	0.8	0.5
GF15R52008P155C	1.5	15	7	20.9	8	11.2	5	2.5	0.8	0.5

Mechanical drawing, all units in mm:



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## HF Product Range, C Type

Temperature Range: -25°C to +85°C

Parameters measured at 25°C

CAP-XX Part no.	Cap (F)	AC ESR Max @1kHz (Ω)	IL max @ 72Hrs (μA)	Dimensions (mm)						
				D	T	H	P	L	C	B
HF15R52010O474C	0.47	20	6	20.9	10	13.5	5	2.5	0.8	0.5
HF15R52010P684C	0.68	20	6	20.9	10	13.5	5	2.5	0.8	0.5
HF15R52010P105C	1	20	7	20.9	10	13.5	5	2.5	0.8	0.5

Mechanical drawing, all units in mm:

